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EXAMINER	
PATEL, KINARI M	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/680,737	Applicant(s) SMITH	
	Examiner Kinari Patel	Art Unit 2654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 October 2000*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9 and 11-19* is/are rejected.

7)☒ Claim(s) *10* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *06 October 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *9* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Fosgate et al. (WO 02/19768).

As per claim 1, Fosgate et al. discloses a method of decoding two-channel matrix encoded audio to reconstruct multichannel audio that approximates a discrete surround-sound presentation, comprising:

subband filtering the two-channel matrix encoded audio into a plurality of two-channel subband audio signals (Page 36, Ln. 28-30 and Page 37, Ln. 1);

separately steering the two-channel subband audio signal in a sound field to form multichannel subband audio signals (Page 37, Ln. 6-7, FIG. 16A, 214); and

synthesizing the multichannel subband audio signals in the subbands to reconstruct the multichannel audio (Page 38, Ln. 12-16).

3. Claims 12, 15, and 19 are rejected under 35 U.S.C. 102(e) as being unpatentable by Dressler ("Dolby Pro Logic Surround Decoder Principles of Operation, Dolby Laboratories, August 29, 2000).

As per claim 12, Dressler discloses a method of decoding two-channel matrix encoded audio to reconstruct multichannel audio that approximates a discrete surround-sound presentation, comprising:

providing two-channel matrix encoded audio that includes at least left, right, center, left surround and right surround (L, R, C, Ls, Rs) audio channels (Page 2, Ln. 8-10, Page 8, Ln. 47-48, FIG. 3, FIG. 4: a decoder recovers left, center, right signals for playback over three front speakers and extracts the surround sound signal for distribution over an array of speakers wrapped around the sides and back of the theatre);

steering the two-channel matrix encoded audio in an expanded sound field that includes a discrete point for each said audio channel to reconstruct the mutichannel audio (Page 2, Ln. 8-10, Page 8, Ln. 47-4, FIG. 3, FIG. 4: a decoder recovers left, center, right signals for playback over three front speakers and extracts the surround sound signal for distribution over an array of speakers wrapped around the sides and back of the theatre. Each of the locations of the speakers is a discrete point); and

distributing the multichannel audio to a speaker configuration that includes a speaker for each of said L, R, C, Ls and Rs audio channels (Page 2, Ln. 8-10, Page 8, Ln. 47-4, FIG. 3, FIG. 4).

As per claim 15, Dressler discloses a method of decoding two-channel matrix encoded audio to reconstruct mutichannel audio that approximates a discrete surround-sound presentation, comprising:

providing two-channel matrix encoded audio that includes at least left, right, center, left surround and right surround (L,R,C,Ls,Rs) audio channels (Page 2, Ln. 8-10, Page 8, Ln. 47-48, FIG. 3, FIG. 4);

subband filtering the two-channel matrix encoded audio into a plurality of two-channel subband audio signals (Page 2, Ln. 8-10, Page 8, Ln. 47-48, FIG. 3, FIG. 4);

separately steering the two-channel subband audio signals in an expanded sound field to form multichannel subband audio signals, said sound field having a discrete point for each said audio channel, each said discrete point corresponding to a set of gain values predetermined to produce an optimized audio output at each of L,R,C,Ls,Rs, speakers, respectively, when the two-channel subband audio signals are steered to that point in the expanded sound field (Page 2, Ln. 8-10, Page 8, Ln. 47-48, FIG. 3, FIG. 4); and

synthesizing the multichannel subband audio signals in the subbands to reconstruct the multichannel audio (Page 2, Ln. 8-10, Page 8, Ln. 47-48, FIG. 3, FIG. 4).

As per claim 19, Dressler discloses all the limitations of the method of claim 15. Dressler further discloses the method of claim 15 wherein the expanded sound field comprises a 9-point sound field. Dressler teaches a decoder that recovers the left, center, right signals for playback over three front speakers, and extracts the surround signal for distribution over an array of

speakers wrapped around the sides and back of the theatre (Page 2, Ln. 8-10, Ln. 53-57, FIG. 3, FIG. 4: the number of speakers in the array may be nine in order to create a 9-point sound field, and the gain values are used in computing soundfield dominance.)

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 2, 3, 4, 6, 9, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fosgate et al. (WO 02/19768) in view of Dressler ("Dolby Pro Logic Surround Decoder Principles of Operation, Dolby Laboratories, August 29, 2000).

As per claim 2, Fosgate et al. discloses all the limitations of the method of claim 1. Fosgate et al. fails to disclose the method of claim 1 wherein the reconstructed mutichannel audio comprises a plurality of dominant audio signals. The aforementioned feature is well known in the art as taught by Dressler. Dressler discloses sensing when a dominant sound occurs and a decoder than provides enhancement on an instantaneous basis between two or more encoded positions when the signal peaks are prominent enough to be heard as individual events (Page 7, Ln. 48-51, 61-64). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of decoding two-channel matrix encoded audio of Fosgate et al. wherein the reconstructed multichannel audio comprises a plurality of

dominant audio signals for the purpose of enhancing the audio signal to provide a more realistic signal.

As per claim 3, Fosgate et al. as modified by Dressler discloses all the limitations of the method of claim 2. Fosgate et al. fails to disclose the method of decoding two-channel matrix encoded audio wherein said dominant audio signals reside in different subbands. The aforementioned feature is well known in the art as taught by Dressler. Dressler discloses providing enhancement between two or more encoded positions when the signal peaks are prominent enough to be heard as individual events (Page 7, Ln. 48-51). The two or more encoded positions may be in different subbands. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Fosgate wherein said dominant audio signals reside in different subbands for the purpose of enhancing certain parts of the audio signal.

As per claim 4, Fosgate et al. as modified by Dressler discloses all the limitations of the method of claim 3. Fosgate et al. fails to disclose the method of decoding two-channel matrix encoded audio wherein steering the two-channel subband audio signals comprises computing a dominance vector in said sound field for each said subband, said dominance vector being determined by the dominant audio signals in the subband.

The aforementioned feature is well known in the art as taught by Dressler. Dressler discloses resolving the magnitudes of the signals along each axis and converting from rectangular to polar coordinates to show dominance as a vector quantity (Page 8, Ln. 38-42).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of decoding two-channel matrix encoded audio to reconstruct multichannel audio of Dressler wherein steering the two-channel subband audio signals comprises computing a dominance vector in said sound field for each said subband so that both the angle and the magnitude of the signal is taken into account when enhancing the audio signal.

As per claim 6, Fosgate et al. discloses all the limitations of the method of claim 1. Fosgate et al. fails to explicitly disclose the method of claim 1 wherein the two-channel matrix encoded audio includes at least left, right, center, left surround and right surround (L, R, C, Ls, Rs) audio channels, said two-channel subband audio signals being steered into an expanded sound field that includes a discrete point for each said audio channel.

The aforementioned feature is well known in the art as taught by Dressler. Dressler teaches a decoder that recovers the left, center, right signals for playback over three front speakers, and extracts the surround signal for distribution over an array of speakers wrapped around the sides and back of the theatre (Page 2, Ln. 8-10, Page 8, Ln. 47-48, FIG. 3, FIG. 4). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of decoding two-channel matrix encoded audio to reconstruct multichannel audio of Fosgate et al. wherein the two-channel matrix encoded audio includes at least left, right, center, left surround and right surround (L, R, C, Ls, Rs) audio channels, said two-channel subband audio signals being steered into an expanded sound field that includes a discrete point for each said audio channel for the purpose of create an surround-sound environment.

As per claim 9, Fosgate et al. as modified by Dressler discloses all the limitations of the method of claim 7. Fosgate et al. fails to disclose the method of claim 7 wherein steering the audio signals, comprises:

computing a dominance vector in said sound field for each said subband, said dominance vector being determined by the dominant audio signals in the subband;

using said dominance vectors and said predetermined gain values for said discrete points to compute a set of gain values for each subband; and

using said two-channel subband audio signals and said gain values to compute the multichannel subband audio signals.

The aforementioned features are well known in the art as taught by Dressler. Dressler teaches showing dominance as vector quantity (Page 8, Ln. 40-42, FIG. 8), monitoring the encoded soundtrack to evaluate the inherent soundfield dominance (Page 8, Ln. 53-54) and applying enhancement in the same direction and in proportion to that dominance (Page 8, Ln. 54-55, FIG. 10). The gain values are used in computing soundfield dominance.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of decoding two-channel matrix encoded audio of Fosgate et al. comprising computing a dominance vector in said sound field for each said subband, said dominance vector being determined by the dominant audio signals in the subband, using said dominance vectors and said predetermined gain values for said discrete points to compute a set of gain values for each subband, and using said two-channel subband audio signals

and said gain values to compute the multichannel subband audio signals for the purpose of optimizing the sound signal output from the surround-sound speakers.

As per claim 11, Fosgate et al. discloses all the limitations of the method of claim 1. Fosgate et al. fails to disclose the method of claim 1 wherein the expanded sound field comprises a 9-point sound field, each said discrete point corresponding to as set of gain values predetermined to produce an optimized audio output at each of L, R, C, Ls, Rs speakers, respectively, when the two-channel subband audio signals are steered to that point in the expanded sound field.

The aforementioned features are well known in the art as taught by Dressler. Dressler teaches a decoder that recovers the left, center, right signals for playback over three front speakers, and extracts the surround signal for distribution over an array of speakers wrapped around the sides and back of the theatre (Page 2, Ln. 8-10, FIG. 3, FIG. 4). The number of speakers in the array may be nine in order to create a 9-point sound field. Dressler further teaches monitoring the encoded soundtrack to evaluate the inherent soundfield dominance, and applying enhancement in the same direction and in proportion to that dominance (Page 8, Ln. 53-57). The gain values are used in computing soundfield dominance.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention to modify the method of decoding two-channel matrix encoded audio to reconstruct multichannel audio of Fosgate et al. wherein the expanded sound field comprises a 9-point sound field, each said discrete point corresponding to as set of gain values predetermined to produce an optimized audio output at each of L, R, C, Ls, Rs speakers, respectively, when the two-channel

subband audio signals are steered to that point in the expanded sound field for the purpose of enhancing the surround-sound effect.

6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fosgate et al. (WO 02/19768) in view of Davis et al. (US Patent No. 5,274,740).

As per claim 5, Fosgate et al. discloses all the limitations of the method of claim 1. Fosgate et al. fails to disclose the method of claim 1 wherein subband filtering groups the subband audio signals into a plurality of bark bands.

The aforementioned feature is well known in the art as taught by Davis et al. Davis et al. teach subband coding to reduce the amount of information transmitted in a particular frequency band where the resulting coding noise is psychoacoustically masked by neighboring spectral components. Psychoacoustic masking effects usually may be more efficiently exploited if the bandwidth of the frequency band are chosen commensurate with the bandwidths of the human ear's "critical bands" (Col. 4, Ln. 1-8). Bark bands are a type of critical band. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of decoding two-channel matrix encoded audio to reconstruct the multichannel audio of Fosgate et al. wherein subband filtering the subband audio signals into a plurality of bark bands for the purpose of taken into account the psychoacoustic properties of the audio signal.

7. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fosgate et al. (WO 02/19768) as applied to claim 6 above, and further in view of Dressler ("Dolby Surround Pro Logic II Decoder Principles of Operation," Dolby Laboratories, 2000).

As per claim 7, Fosgate et al. as modified by Dressler discloses all the limitations of the method of claim 6. Fosgate et al. fails to disclose the method of claim 6 wherein each said discrete point corresponds to a set of gain values predetermined to produce an optimized audio output at each of L, R, C, Ls, Rs speakers, respectively, when the two-channel subband audio signals are steered to that point in the expanded sound field.

The aforementioned feature is well known in the art as taught by Dressler. Dressler teaches controls that are used in any kind of decoder to allow optimization of the soundfield as desired including dimension control, center width control, and panorama mode (Page 6, Line 9-25). Dressler further describes an active decoder that keeps a dominant signal from leaking to surrounding speakers (Page 4, Ln. 1-2), and the gains are adjusted to maintain balance of the dominant signals (Page 4, Ln. 13-24). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of decoding two-channel matrix encoded audio to reconstruct multichannel audio of Fosgate et al. wherein each said discrete point corresponds to a set of gain values predetermined to produce an optimized audio output at each of L, R, C, Ls, Rs speakers, respectively, when the two-channel subband audio signals are steered to that point in the expanded sound field for the purpose of the best quality audio signal at each of the surround-sound speakers.

As per claim 8, Fosgate et al. as modified by Dressler discloses all the limitations of the method of claim 7. Fosgate et al. fails to disclose the method of claim 7 wherein each said discrete point further includes a gain value predetermined to produce an optimized audio output at a center surround (Cs) speaker when the subband audio signal is steered to that point in the expanded sound field. The aforementioned feature is well known in the art as taught by Dressler. Dressler discloses variable adjustment of the center image so it may be heard only from the center speaker (Page 6, Ln. 17-18). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of decoding two-channel matrix encoded audio to reconstruct multichannel audio of Fosgate et al. wherein each said discrete point further includes a gain value predetermined to produce an optimized audio output at a center surround (Cs) speaker when the subband audio signal is steered to that point in the expanded sound field for the purpose of providing a balanced sound.

8. Claims 13, 14, 16, and 18 are rejected under 35 U.S.C. 102(e) as being unpatentable by Dressler ("Dolby Pro Logic Surround Decoder Principles of Operation, Dolby Laboratories, August 29, 2000 – hereinafter referred to as Dressler A) in view of Dressler ("Dolby Surround Pro Logic II Decoder Principles of Operation," Dolby Laboratories, 2000 – hereinafter referred to as Dressler B).

As per claim 13, Dressler A discloses all the limitations of the method of claim 12. Dressler A fails to explicitly disclose the method of claim 12 wherein each said discrete point corresponds to a set of gain values predetermined to produce an optimized audio output at each

of the L,R,C,Ls,Rs speakers, respectively, when the two-channel matrix encoded audio is steered to that point in the expanded sound field. The aforementioned feature is well known in the art as taught by Dressler B.

Dressler B teaches controls that are used in any kind of decoder to allow optimization of the soundfield as desired including dimension control, center width control, and panorama mode (Page 6, Line 9-25). Dressler B further describes an active decoder that keeps a dominant signal from leaking to surrounding speakers (Page 4, Ln. 1-2), and the gains are adjusted to maintain balance of the dominant signals (Page 4, Ln. 13-24). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of decoding two-channel matrix encoded audio to reconstruct multichannel audio of Dressler A wherein each said discrete point corresponds to a set of gain values predetermined to produce an optimized audio output at each of L, R, C, Ls, Rs speakers, respectively, when the two-channel subband audio signals are steered to that point in the expanded sound field for the purpose of the best quality audio signal at each of the surround-sound speakers.

As per claim 14, Dressler A discloses all the limitations of the method of claim 13. Dressler A fails to explicitly disclose the method of decoding two-channel matrix encoded audio wherein each said discrete point further includes a gain value predetermined to produce an optimized audio output at a center surround (Cs) speaker when the subband audio signal is steered to that point in the expanded audio field. The aforementioned feature is well known in the art as taught by Dressler B. Dressler B discloses variable adjustment of the center image so it may be heard only from the center speaker (Page 6, Ln. 17-18) Therefore, it would have been

obvious to one of ordinary skill in the art at the time the invention was made to modify the method of decoding two-channel matrix encoded audio wherein each said discrete point further includes a gain value predetermined to produce an optimized audio output at a center surround (Cs) speaker when the subband audio signal is steered to that point in the expanded audio field for the purpose of providing a balanced sound.

As per claim 16, Dressler A discloses all the limitations of the method of claim 15. Dressler A fails to disclose the method of claim 15 wherein the reconstructed multichannel audio comprises a plurality of dominant audio signals that reside in different subbands. The aforementioned feature is well known in the art as taught by Dressler B. Dressler B discloses sensing when a dominant sound occurs and a decoder than provides enhancement on an instantaneous basis between two or more encoded positions when the signal peaks are prominent enough to be heard as individual events (Page 7, Ln. 48-51, 61-64). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of decoding two-channel matrix encoded audio of Dressler A wherein the reconstructed multichannel audio comprises a plurality of dominant audio signals for the purpose of enhancing the audio signal to provide a more realistic signal.

As per claim 18, Dressler A discloses all the limitations of the method of claim 15. Dressler A fails to disclose the method of claim 15 wherein each said discrete point further includes a gain value predetermined to produce an optimized audio output at a center surround (Cs) speaker when the subband audio signal is steered to that point in the expanded sound field.

The aforementioned feature is well known in the art as taught by Dressler B. Dressler B teaches variable adjustment of the center image so it may be heard only from the center speaker (Page 6, Ln. 17-18). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of decoding two-channel matrix encoded audio to reconstruct multichannel audio of Dressler A wherein each said discrete point further includes a gain value predetermined to produce an optimized audio output at a center surround (Cs) speaker when the subband audio signal is steered to that point in the expanded sound field for the purpose of providing a balanced sound.

9. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dressler ("Dolby Pro Logic Surround Decoder Principles of Operation, Dolby Laboratories, August 29, 2000) in view of Davis et al. (US Patent No. 5,274,740).

As per claim 17, Dressler discloses all the limitations of the method of claim 15. Dressler fails to disclose the method of claim 15 wherein subband filtering groups the subband audio signals into a plurality of bark bands. The aforementioned feature is well known in the art as taught by Davis et al. Davis et al. teach subband coding to reduce the amount of information transmitted in a particular frequency band where the resulting coding noise is psychoacoustically masked by neighboring spectral components. Psychoacoustic masking effects usually may be more efficiently exploited if the bandwidth of the frequency band are chosen commensurate with the bandwidths of the human ear's "critical bands" (Col. 4, Ln. 1-8). Bark bands are a type of critical band.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of decoding two-channel matrix encoded audio to reconstruct the multichannel audio of Dressler wherein subband filtering the subband audio signals into a plurality of bark bands for the purpose of taken into account the psychoacoustic properties of the audio signal.

Allowable Subject Matter

10. Claim 10 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. The following is an examiner's statement of reasons for allowance:

As per claim 10, the prior art taken alone or in combination fail to disclose the method of claim 9, wherein the gain values for each subband are computed by performing a linear interpolation of the predetermined gain values surrounding the dominance vector to define the set of gain values at the point in the sound field indicated by the dominance vector.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent No. 5,046,098 to Mandell et al. with respect to variable matrix decoders

US Patent No. 6,021,386 to Davis et al. with respect to sound fields

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kinari Patel whose telephone number is 703-305-8487. The examiner can normally be reached on 9 AM - 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on 703-305-9645. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

kp

RICHEMOND DORVIL
SUPERVISORY PATENT EXAMINER